Summary of Commission Decision

of 5 December 2007

declaring a concentration compatible with the common market and the functioning of the EEA Agreement

(Case COMP/M.4647 — AEE/Lentjes)

(Only the German version of the Decision is authentic)

(2009/C 101/06)

On 5 December 2007 the Commission adopted a Decision in a merger case under Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings [1], *and in particular Article 8(1) of that Regulation. A non-confidential version of the full Decision can be found in the authentic language of the case and in the working languages of the Commission on the website of the Directorate-General for Competition, at the following address: http://ec.europa.eu/comm/competition/index_en.html*

This summary only constitutes a simplified outline of the main aspects of the decision; it has no legal force and serves for information purposes only.

I. INTRODUCTION

1. On 29 June 2007 the Commission received notification, pursuant to Article 4(5), read in conjunction with Article 4(1) and (2), of Council Regulation (EC) No 139/2004 ('the Merger Regulation') of a proposed concentration by which Austrian Energy & Environment AG & Co KG ('AEE', Austria), which forms part of the Austrian A-Tec group ('A-Tec'), acquires, within the meaning of Article 3(1)(b) of the Merger Regulation, sole control of Lentjes GmbH ('Lentjes', Germany, referred to jointly with AEE as 'the parties') by way of purchase of shares from the previous shareholder, the GEA group, an international technology group (engineering and chemicals).

2. AEE, a subsidiary of the Austrian A-Tec group ('A-Tec'), is active in the field of energy and environmental technology. Its product portfolio includes combustion systems based on grate and fluidised bed technology, grate-fired boilers for waste, biomass and coal combustion, flue gas cleaning and flue gas desulphurisation, as well as boilers. Within this product portfolio AEE offers development, production and assembly of components and plants. In addition, its parent company A-Tec is active in the fields of drive engineering, metals and mechanical engineering.

3. Lentjes is also active in the supply of energy and environmental technology. It supplies complete waste-to-energy plants or lots for such plants (consisting at least of a combustion system), providing in particular the necessary process and basic engineering, but Lentjes does not manufacture the components for plants itself. Lentjes is currently controlled by the German GEA Group.

4. The intended transaction concerns the acquisition by A-Tec through its wholly owned subsidiary AEE of sole control over Lentjes by way of purchase of shares from the seller GEA Group.

[1] OJ L 24, 29.1.2004, p. 1.

5. Given the multiple filing requirements in at least three Member States and the cross-border nature of the transaction, the case was referred to the Commission under Article 4(5) of the EC Merger Regulation for the purpose of its competitive assessment. No Member State opposed to the referral [1].

6. Having examined the notification, the Commission found that the notified proposal fell within the scope of the Merger Regulation. On 3 August 2007 it decided in accordance with Article 6(1)(c) of the Merger Regulation to initiate proceedings in this case and open a phase II investigation.

II. **RELEVANT MARKETS**

A. THE RELEVANT PRODUCT MARKETS

7. The parties' activities overlap in the supply of combustion systems and related technologies for municipal waste incineration plants and thermal treatment plants based on fluidised bed technology. Moreover, both parties also supply flue gas desulphurisation systems.

8. In these areas, the parties are active as (a) suppliers of complete plants or lines (general contractor assuming responsibility for the functioning of the complete plant), and as (b) suppliers of lots for such plants, i.e. as suppliers of the combustion system and/or flue gas desulphurisation system (assuming responsibility for the functioning of this particular lot).

1. **Thermal treatment plants based on grate technology**

Municipal waste incineration plants based on grate firing with a throughput of more than 4,5 t/h

9. In its previous decisions, the Commission has defined a relevant product market as market for *municipal waste incineration plants* [2]. The parties argue that this product market definition was based on the fact that at the time there were no other waste incineration plants than those which treated municipal waste, whereas today the market should be considered as being wider, including all kinds of waste-to-energy plants based on grate firing.

10. The market investigation confirmed that municipal waste incineration plants based on grate firing should be considered as a distinct product market. Moreover, it confirmed the distinction between very small plants with a throughput capacity of less than 4,5 t/h and such plants with higher throughput.

Complete lines and lots

11. The initial market investigation revealed a need to draw a distinction between markets for the supply of *complete plants/lines* on a 'turnkey' basis and between the supplies of *lots*. The Phase II investigation brought clarification on the interaction between the two segments, in a sense that the supply of lots puts a significant competitive constraint on the suppliers of complete plants/lines, as will be elaborated further in the competitive assessment. It is, however, not necessary to draw a definitive conclusion on whether the supply of lots and complete plants/lines form separate markets.

[1] The transaction would have been notifiable in the following Member States: Austria, Germany, Ireland and UK.
[2] See Case COMP/M.1552, Babcock Borsig/AE Energietechnik, decision of 30 June 1999, and Case COMP/M.1594, Preussag/Babcock Borsig, decision of 17 August 1999.

Upstream markets: detail engineering of municipal waste incineration plants and manufacturing of boiler components

12. A-Tec is also active in detail engineering and production of pressure parts for boilers and valves, activities which are upstream to the horizontally affected market for the supply of municipal waste incineration plants based on grate firing with a throughput of more than 4,5 t/h. The market investigation has broadly confirmed that these activities each constitute separate relevant product markets. Given that there are no competition concerns regarding this vertical relationship, the question of a further segmentation of these markets can ultimately be left open in the present case.

2. **Thermal treatment plants based on fluidised bed technology with a capacity below 200 MWel**

13. The parties submit that combustion systems based on fluidised bed technology with a capacity below 200 MWel should be considered as a separate relevant product market.

14. Lentjes supplies a special type of fluidised bed technology called ROWITEC, which is a combustion system modified and adapted to be used for the incineration of municipal waste and other residual material. The parties submit that it competes with grate-fired combustion systems for waste incineration plants. This was not confirmed by the market investigation results. It appears that ROWITEC systems belong to combustion systems based on fluidised bed technology and should not be included in the market for combustion systems based on grate technology.

15. The market investigation also indicated that the market could be segmented into fluidised bed plants based on different technologies, which serve different purposes, i.e. bubbling (stationary) fluidised bed, circulating fluidised bed and the ROWITEC technology mentioned above. However, given that there are no competition concerns even on the basis of a narrower product market definition (due to the absence of any overlaps between the parties' activities in ROWITEC and circulating fluidised bed, and only negligible overlaps regarding bubbling fluidised bed plants), the exact scope of the product market can ultimately be left open.

16. The relevant product market is thus for the purposes of the present case defined as market for thermal treatment plants based on fluidised bed technology with a capacity below 200 MWel.

3. **Flue gas desulphurisation systems**

17. In previous cases the Commission had defined an overall market for desulphurisation systems [1]. The market investigation in Phase I of the present proceeding had — at a very late stage — revealed indications that the market for flue gas desulphurisation (mainly used for plants based on fluidised bed technology, in which coal is used as part of the fuel) should be further segmented according to three different methods, i.e. wet, semi-dry and dry flue gas desulphurisation. These indications have been broadly confirmed by the in-depth investigation in Phase II.

[1] See Case COMP/M.1552, Babcock Borsig/AE Energietechnik, decision of 30 June 1999, and Case COMP/M.1594, Preussag/Babcock Borsig, decision of 17 August 1999.

18. Competition concerns had been voiced by two competitors of the parties on the downstream market for fluidised bed plants with regard to a specific semi-dry desulphurisation method, the so-called circulating dry scrubber ('CDS'). The competitors claimed that systems based on this method could only be supplied by Lentjes and one other competitor, Alstom. They also claimed that these systems were a necessary input for their activities on the market for fluidised bed plants, since they had to offer these systems as part of an overall package for a complete plant or line with regard to certain types of multi-fuel plants. They were concerned that after the merger it would be more difficult for them to obtain these systems (or obtain them at a reasonable price), since Lentjes would then be vertically integrated with AEE, one of their main competitors on the downstream market.

19. The in-depth market investigation in Phase 2 revealed that all semi-dry methods lead to comparable results. Respondents stated that even some technologies, which are commonly attributed to the area of dry methods (spray absorber technologies), can be alternatives for certain types of plants, in particular multi-fuel plants ([1]). It ultimately depends on the sulphur content in the fuels that a customer will burn, as well as on environmental norms (notably the emission standards, which can sometimes be stricter than the relevant EU standards ([2]), depending on the location of the plant), whether a customer chooses one or the other method.

20. Niche applications exist within the broad categorisation mentioned above (wet, semi-dry and dry methods), such as Lentjes' CDS, which appears to be very performing but expensive, and it is protected by intellectual property rights.

21. Based on the above, it appears that within the product market for flue gas cleaning a general distinction between wet, semi-dry and dry technologies leads to a segmentation of the overall market, with potential niche segments for very specific applications. All major suppliers offer flue gas cleaning systems falling into these three categories, and since there are no competition concerns under any alternative product market definition, as will be outlined below, the market definition can ultimately be left open.

B. THE RELEVANT GEOGRAPHIC MARKETS

22. The geographic scope of the affected market can be considered to be EEA-wide. The main players are active EEA-wide and no barriers to entry into different national areas have been identified. At the same time, however, the market investigation indicated that the market must be defined as being (as yet) no wider than the EEA, since competitors from outside the EEA take part in tenders in the EEA only very rarely unless they have European subsidiaries.

III. **COMPETITIVE ASSESSMENT**

A. HORIZONTAL EFFECTS

1. **Thermal treatment plants for municipal waste based on grate technology**

Market shares

23. The Commission carried out an in-depth bidding analysis which also provided data to reconstruct the market. The information gathered in this investigation concerns (almost) all projects awarded in this area during 2002-2006 in the EEA. On this basis the market share figures for the parties for 107 projects, representing an almost complete coverage of the relevant market, are as follows:

([1]) The brands/methods that were mentioned as being comparable include Lentjes (CDS), Alstom (NID), AEE (Turbosorp), Wulff (Graf-Wulff-technology), LAB and Fisia Babcock; for more details see competitive assessment below.

([2]) Directive 2000/76/EC on the incineration of waste and Directive 2001/80/EC on the large combustion plants.

Table 1

Market share distribution for municipal waste incineration plants 2002-2006 — overall market, complete plants and plant parts

Company	Overall market	Complete plants	Plant parts
AEE	[25-35] %	[30-40] %	[20-30] %
Lentjes	[10-20] %	[20-30] %	[5-10] %
AEE/Lentjes	***[35-55] %***	***[50-70] %***	***[25-40] %***
CNIM/Martin	[20-30] %	[20-30] %	[15-25] %
Fisia	[10-20] %	< 5 %	[15-25] %
Vølund	[5-10] %	0 %	[15-25] %
KAB Takuma	[5-10] %	[10-20] %	0 %
Baumgarte	< 5 %	0 %	< 5 %
Stiefel	< 5 %	< 5 %	< 5 %
Keppel Seghers	< 5 %	0 %	< 5 %
Oschatz	< 5 %	< 5 %	0 %
Vinci	< 5 %	< 5 %	< 5 %
Wulff	< 1 %	< 5 %	0 %
Energos	< 1 %	< 1 %	0 %

Source: Form CO and market investigation.

24. If one were to distinguish separate segments for complete lines on the one hand and part plants (lots) on the other hand, the parties would be the clear market leader for complete lines/plants, followed by Martin/CNIM and KAB Takuma. For lots, the merger would lead to the number one, closely followed by several other players of roughly similar size (Fisia, Martin/CNIM and Volund).

Bidding analysis

25. The bidding analysis conducted by the Commission revealed that out of the total of 107 tenders, AEE and Lentjes were direct competitors in [10-15] bids.

26. First, it can be observed that when both AEE and Lentjes were bidding, they usually faced Martin/CNIM, Fisia, and KAB Takuma on a regular basis in these tenders. Comparing the *participation rates* for the [10-15] tenders with those for all projects shows that Fisia, Martin/CNIM as well as KAB Takuma participated more often in tenders in which AEE and Lentjes were present. This shows that in general the tenders in which both parties participate attract more alternative bidders than is usually the case in the industry.

27. The Commission also analysed the *success rates* of the main competitors and made a comparison of the overall success rate in all projects during 2002-2006 and the success rate in tenders where AEE and Lentjes were both participating. Lentjes' success rate in the tenders where AEE participated was significantly lower than its rate in all tenders. This observation also holds for complete lines. This seems to indicate that Lentjes did not reduce AEE's success in tenders; quite to the contrary AEE's presence is correlated with a bad performance on behalf of Lentjes.

28. Furthermore, nor does an analysis of the second-placed competitor in the tenders that were won by AEE point to the elimination of a significant competitive factor. The customers were asked to inform the Commission about details of their tenders to assess who was the *'runner-up'* to the winner in the projects where both parties participated and the award went to AEE. For these projects, Fisia seems to be almost as close as Lentjes.

29. Although the in-depth bidding analysis provided more information, it was not possible to identify any specific features of those tenders in which the different players participated. Even though every company seems to have its own special strengths and own technologies, the overall picture is that all of the established players are able to execute large projects for complete plants/lines and that there is no particular technological advantage in the hands of the parties or other suppliers. There is no particular cluster of projects where the parties would have a particular advantage and where the remaining competitors would not be able to win a project or at least to exercise a significant competitive constraint on the merged entity.

30. The Phase II investigation also clarified, that there are often more competitors in the pre-qualification phase than the bidders that actually submit an offer. Competitors participating in the market investigation explained that they themselves consider whether or not to submit the final offer in view of the attractiveness of the project and of the client (in terms of feasibility of the project, commercial conditions and guarantees required, relationships with client etc.) and notably in view of the anticipated chance to win the contract among the other competitors. Therefore, the relatively low average number of bidders participating in the final round thus does not accurately reflect the competitive constraints exercised by other bidders which could potentially bid and which often participated in earlier rounds of the tenders.

Ranking of the suppliers

31. In addition to the bidding analysis, customers were asked during the in-depth market investigation to *rank competitors* relative to Lentjes according to several criteria which are essential for success in the industry: financial strength, reference projects, grate technologies, engineering know-how and project management know-how.

32. The replies of *customers* who answered based on their experience with Lentjes revealed that AEE, Martin/CNIM, Fisia and Volund are viewed as stronger players than Lentjes in the market. Overall the replies indicate that AEE's close competitor is not Lentjes, but rather Martin/CNIM and Fisia. The same ranking was sent to *planning and engineering firms or consultants*. Their evaluation of the different suppliers in the area of municipal waste incineration mirror to a large extent the one of customers. They perceive AEE, Martin/CNIM and Fisia as the leading suppliers in the market followed by Lentjes.

33. Customers further consider Volund stronger and Baumgarte as comparable to Lentjes (although Volund and Baumgarte tend to specialise on lots), followed by KAB Takuma. The general picture is confirmed that the main players for complete lines/plants are AEE, Martin/CNIM, Lentjes, Fisia and recently KAB Takuma, while other suppliers play only a minor role. In lots Baumgarte, Volund and ThyssenKrupp Xervon Energy are credible suppliers as well.

Competitive constraints on complete plant suppliers from lots

34. The Phase II investigation also revealed that many customers, although they have a preference for a turnkey provider, can alternatively switch to a lot solution complemented by an engineering company or in-house resources for the turnkey function. The role played by engineering firms, which were not covered by the initial market investigation, appears to be crucial. Engineering companies allow customers to acquire knowledge about the market, structure the tender and evaluate bids and they compensate the lack of in-house engineering capacities of the one-off clients (such as municipalities). In addition, they provide the interlinking engineering services and thereby allow customers to choose between a complete line from a turnkey provider or a lot solution.

35. On the basis of these replies and the information gathered from the engineering firms, it appears that unbundling a project into lots appears to be a credible alternative to a general contract for a complete line. Therefore, the threat coming from the suppliers of lots is a constraining force for the suppliers of complete plants.

New entrants and alternative 'turnkey' suppliers

36. Because of the need of reference projects, financial strength and turn-key responsibility, new entry faces high barriers and can only be expected from companies that have strengths in one of the three mentioned aspects. This has been confirmed during the second phase market investigation which revealed potential credible entry coming from: companies with existing technology, financial strength and reference projects currently active outside the EEA; companies active within the EEA but focused on a particular region or a segment and finally companies with turn-key responsibility active in neighbouring product markets.

Recent market entry

37. In the first phase investigation only *KAB Takuma* was mentioned by respondents as a new entrant in the market for waste incineration plants. However, despite its strong financial backing and credible technology, which already won it three contracts for complete plants/lines in Europe, its position did not seem to be as well-established as the position of the other main suppliers due to the lack of European reference projects. The in-depth investigation revealed that KAB Takuma is, nevertheless, considered as new credible player by specialised engineering consultants, and this is also expected to change customers' perceptions. It can also be noted that with one exception all engineering companies, when asked how many credible suppliers were available for turnkey plants, mentioned *at least four credible suppliers*: AEE/Lentjes, Martin/CNIM, Fisia and KAB Takuma.

38. The Phase II investigation also showed that other entrants in addition to KAB Takuma must be considered. The former Belgian company Seghers has — after the acquisition by the Singapore based company Keppel — re-entered the European market and has won some projects during the last two years. In addition, Seghers is currently competing for a turn-key project with established players.

Potential new entrants

39. Regional European players can also be seen as potential entrants into the supply of complete plants/lines. The traditional suppliers of lots can also be seen as potential entrants into the supply of complete lines. It is not uncommon to see these suppliers teaming-up with other companies to form *consortia* and to bid for complete plant/line.

40. Next, some alternative possibilities for turnkey supplies of complete plants from companies not having waste incineration technology as their core competence was also identified during the market investigation. One customer reported an ongoing tender where a turnkey provider with experience in construction in the oil business, but without any own technology in the area of municipal waste incineration organised a consortium to be at least runner-up. In the UK, a pure turnkey supplier without own technology has already won a turnkey project and participated in more tenders for complete plants, outsourcing the key technological parts of the project.

Lentjes future market position

41. Germany has traditionally been the strongest market for Lentjes and for AEE and the historical market shares of the parties reflect their success in this key market. The market investigation, however, has revealed that since Germany started already during the 90s to restrict the landfill of waste, the relative importance of the waste-to energy market in Germany will be reduced as other parts of the EEA have only started in recent years following the EU Landfill Directive. Market growth is expected in Southern and in Eastern Europe, where similar legislation as in Germany has not yet entered in force. Indeed, the proportion of ongoing (not yet awarded) tenders in Germany compared to the overall EEA market is noticeably smaller than the German proportion within projects awarded in the past 5 years. This market development thus seems to weaken the relative position of the parties, which have traditionally been strong in Germany, on the EEA market in the future.

42. Another aspect that plays a role in assessing the accuracy of previous market performance as a prediction of future market strength is the weakened financial position of Lentjes. Financial strength is considered as one of the key attributes necessary for a supplier of a waste incineration solution to be considered by customers, notably because of high guarantees required for the projects. Lentjes' waste-to-energy business has been loss-making in the past years. GEA, the parent company of Lentjes, has tried without success to restructure the company and finally decided to sell Lentjes. Some customers have also perceived Lentjes as a company with less presence in the market recently and indeed no contracts have been awarded to it in 2006 and 2007. Lentjes thus seems not to be able to assert strong competitive pressure on the other suppliers in the future absent the merger.

Conclusion on waste incineration plants

43. The indirect competitive pressure from suppliers of lots on the turn-key segment has been confirmed. Additional information about the bidding process shows that it is difficult to conclude that the parties are close competitors. Neither have the perceptions of market players with regard to the suppliers indicated that they view the parties as close competitors. Moreover, the potential for alternative suppliers is clearly broader than the first phase investigation indicated, and the historic market positions are not necessarily accurate indicators of future market strength in view of the changing framework conditions.

2. **Thermal treatment plants based on fluidised bed technology with a capacity below 200 MWel**

44. On this market the merged entity would have an EEA-wide market share of approximately [25-35] % (AEE [20-30] %, Lentjes [5-10] %). Their main competitors are Foster Wheeler (approximately [30-40] %) and Metso/Kvaerner (approximately [30-40] %). Further competitors, each with an approximately [<5] % market share, mainly fluidised-bed-technology-based biomass heating plants.

45. The in-depth Phase II market investigation, during which it was examined in particular whether and if so to what extent this market might be divided into further submarkets or segments, did not produce any evidence of anticompetitive horizontal effects due to the planned merger.

B. VERTICAL EFFECTS

46. Competition concerns had been raised regarding Lentjes' CDS technology for flue gas desulphurisation. Two competitors of AEE on the downstream market for fluidised bed plants were concerned that their — as they claim — only supplier of this technology with regard to multi-fuel plants based on circulating fluidised bed technology would not supply them any more after the merger, due to the fact that AEE is a strong competitor of them on the downstream market.

1. **Competitive situation on the upstream market for flue gas desulphurisation systems**

47. On an overall market for flue gas desulphurisation systems, the combined market shares of the parties would be approximately [25-45] % (AEE: [15-25] %, Lentjes: [15-25] %), while their strongest competitors had market shares of approximately [20-30] % (Alstom), [15-25] % (Fisia), [10-20] % (Hitachi Power) and [5-10] % (Mitsubishi). Further competitors in this area include Wulff, LAB (CNIM group) and FLSmidth.

2. **No ability to foreclose downstream competitors**

48. The complainants had raised concerns with regard to medium-sized multi-fuel plants. More precisely, the concerns regard such plants in a range between 30 and 50 MWel [1].

Alternative desulphurisation methods

49. The overall majority of respondents in the market investigation confirmed that the type of flue gas desulphurisation system to be used in such a plant depends on the type of fuel (mix) that is burned and the emission standards. The majority of these respondents named other semi-dry or dry solutions as being comparable to the Lentjes and Alstom technology, namely those offered by AEE (Turbosorp), Wulff (Graf-Wulff-technology), LAB and Fisia Babcock.

50. The in-depth investigation revealed that the Graf-Wulff technology appear to be almost identical with the technology offered by Lentjes. The Commission also contacted the customers in three ongoing projects mentioned by one of the complainants as crucial projects in this area. One of these customers stated that for its two projects there are alternative cleaning solutions (based on dry technology). The other customer confirmed that this type of fluidised cleaning method would be their preferred solution, but that they have alternative bids from other suppliers and are therefore not concerned about any anti-competitive effects of the intended transaction.

[1] One of the complainants was mostly concerned regarding multi-fuel-plants in the range of above 100 MWel. However, the majority of respondents in the market investigation stated that for this segment the semi-dry methods could be substituted by wet desulphurisation methods.

Separate tenders for flue gas desulphurisation

51. Moreover, customers explained that they are now considering parallel tenders — one for the firing unit (i.e. the fluidised bed boiler), with an option to supply also the flue gas desulphurisation part, and one separate tender for the flue gas desulphurisation system, in order to get the best solution both in terms of technology as well as in terms of costs. Consequently, the merged entity could participate in submitting a bid for the complete boiler island, i.e. boiler and flue gas desulphurisation system, as well as a separate bid just for the desulphurisation system. As a consequence, the Lentjes technology would still be available for end-customers, which could combine it with a boiler from AEE's competitors, if necessary.

Sufficient number of other vertically integrated competitors

52. Furthermore, even in cases where such plants are only tendered on the basis of bids for the complete plant (or at least the boiler island), the downstream market is a bidding market and customers have stated that there are other integrated suppliers which could participate in such bids. Therefore, the merged entity would still face competition from other integrated suppliers, such as Mitsubishi or SES TLMACE. The end-customer would thus still have the choice between a number of suppliers which could submit bids for such plants.

Conclusion vertical effects

53. The merged entity does not have the ability to foreclose its downstream competitors. The merger accordingly gives rise to no competition concerns in respect of the relationship between the upstream market for flue gas desulphurisation plants and the downstream market for fluidised bed plants below 200 MWel.

IV. **CONCLUSION**

54. The proposed concentration would not significantly impede effective competition in the common market or in a substantial part of it. Under Article 2(2) and Article 8(1) of the Merger Regulation, therefore, the transaction should be declared compatible with the common market and the functioning of the EEA Agreement.